

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 recites the limitation "the pole" , "the axis", "the external", the net", "the accumulated". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over White et al. (US. Pub. No. 20040249383) in view of Frederick et al. (US. Pub. No. 20040225294).

White et al. discloses a cutting tool (Fig. 30) for preparing a cavity in a bone for receiving a component of an orthopaedic joint prosthesis, in which the shape of the tool is based on a shell having a rotationally symmetrical outer surface (Fig. 2 and 3), in which the external surface presents at least two outwardly directed cutting teeth (abstract), arranged (Figs. 7 and 8) such that the net translational force on the tool in the plane which is perpendicular to the axis of rotation, resulting from the accumulated resistance of the teeth when rotated against a rotationally symmetrical cavity in which

the tool is a snug fit, is approximately balanced. The teeth are arranged into at least two sets of teeth (see modified Fig. 7 below), wherein the teeth (26) of each set are arranged on the contacting surface. The sets of teeth consist of 2-3 or more than three teeth (Figs. 7 and 8). the teeth within any of the sets are the same distance from the axis of rotation of the tool, and the length of an are taken between any pair of adjacent teeth within any of the sets of teeth is equal for each pair of adjacent teeth within that set (Fig. 7), in which the teeth are arranged on the contacting surface asymmetrically with respect to the axis of rotation (Fig. 7). The teeth are arranged such that their arrangement is that of at least one interrupted spiral (fig. 8). A bar (440, Fig. 26) which extends across the interior of the shell, from one side to the opposite other side, by which the shell can be engaged by an instrument for manipulation (fig. 30). The shell is intact in a region around the pole (Fig. 2), in which the shape of the external surface of the shell in the region around the pole is generally that of a part of a sphere (Fig. 3). The teeth located within the region around the pole are not arranged on the contacting surface (fig. 8).

White et al. fails to disclose at least one portion cut out from the shell, the cut out portion extending from the peripheral edge of the shell toward the pole of the shell, such that the tool has no more than one plane of symmetry passing through the axis of rotation.

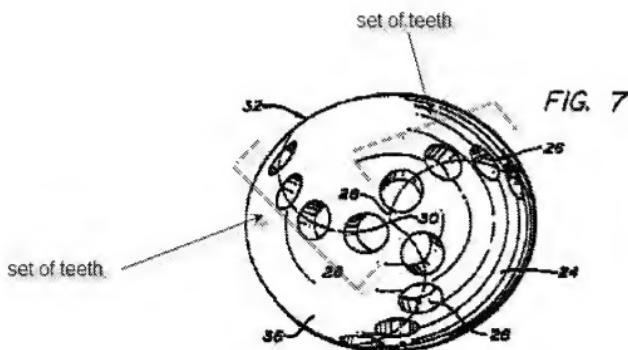
Frederick et al. teaches at least one portion (Fig. 7) cut out from the shell, the cut out portion extending from the peripheral edge of the shell toward the pole of the shell (Fig. 7), such that the tool has no more than one plane of symmetry passing through the

axis of rotation (Fig. 7) for providing a lower profile, of a reamer, or smaller dimension in at least one direction across the equatorial plane, which facilitates insertion and withdrawal of the reamer into and from the wound (paragraph [46]).

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify the outer surface of the tool of White et al with at least one portion cut out in view of Frederick et al for providing a lower profile, of a reamer, or smaller dimension in at least one direction across the equatorial plane, which facilitates insertion and withdrawal of the reamer into and from the wound.

White et al. in view of Frederick et al. fail to teach that the ratio of the distance from the edge of the circular region to the pole to the ratio of the shell to the pole (both distances being measured along the spherical surface of the shell) is not more than about 0.5.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the ratio of the distance from the edge of the circular region to the pole to the ratio of the shell to the pole is not more than about 0.5, since it has been held that discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.



Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAMEH BOLES whose telephone number is (571)270-5537. The examiner can normally be reached on Monday - Friday 7:30am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Barrett can be reached on (571)272-4746. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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